

In the Claims:

Please **amend** claims 1-3 and 5-8 and **add** new claims 9-16 as follows:

1. (Currently Amended) A method of manufacturing a semiconductor device, comprising ~~the steps of~~:

· providing a semiconductor substrate for which given processes for forming the semiconductor device ~~are~~ have been implemented; ~~and~~

implanting boron for forming a p well in the semiconductor substrate by means of an ion implantation process; and

implanting a ~~3-balance dopant of elements~~ Group III monoatomic dopant having a higher atomic weight than boron ~~and made of monoatomic species~~ at a given depth within the p well of the semiconductor substrate by means of an ion implantation process, thus forming an ion implantation layer in the p well.

2. (Currently Amended) The method as claimed in claim 1, further comprising ~~the step of~~ forming a screen oxide film on the semiconductor substrate before the ~~dopant is~~ dopants are implanted.

3. (Currently Amended) The method as claimed in claim 1, wherein the Group III ion implantation process includes implanting a the Group III monoatomic dopant at a concentration range of ~~5E11 ~ 1E13~~ $5 \times 10^{11} \sim 1 \times 10^{13}$ ion/cm² with an energy range of 10 ~ 50KeV.

4. (Original) The method as claimed in claim 1, wherein the dopant is indium.

5. (Currently Amended) The method as claimed in claim 1, wherein the ion implantation process includes implanting the dopants at a tilt angle range of 3 ~ 13°.

6. (Currently Amended) The method as claimed in claim 1, further comprising ~~the step of implementing a rapid thermal process in order~~ to activate the dopant after the ion implantation layer is formed.

7. (Currently Amended) The method as claimed in claim 6, wherein the rapid thermal process is implemented at a temperature range of 800 ~ 1100°C at ~~the ratio a~~ heating rate range of 20 ~ 50 °C/sec for a time period range of 5 ~ 30 seconds.

8. (Currently Amended) The method as claimed in claim 6, wherein the ~~rapid~~ rapid thermal process is implemented under a nitrogen atmosphere.

9. (New) A method of manufacturing a semiconductor device, comprising:
forming a p well in a semiconductor substrate by implanting boron in the substrate by means of an ion implantation process; and

forming an ion implantation layer in the p well by implanting a Group III monoatomic dopant having a higher atomic weight than boron at a predetermined depth within the p well by means of an additional ion implantation process.

10. (New) The method as claimed in claim 9, further comprising forming a screen oxide film on the semiconductor substrate before the boron or Group III monoatomic dopants are implanted.

11. (New) The method as claimed in claim 1, wherein the Group III monoatomic dopant is implanted at a concentration range of $5 \times 10^{11} \sim 1 \times 10^{13}$ ion/cm² with an energy range of 10 ~ 50KeV.

12. (New) The method as claimed in claim 1, wherein the dopant is indium.

13. (New) The method as claimed in claim 1, wherein the ion implantation process includes implanting the dopants at a tilt angle range of 3 ~ 13°.

14. (New) The method as claimed in claim 1, further comprising the step of implementing a rapid thermal process to activate the Group III monoatomic dopant after the ion implantation layer is formed.

15. (New) The method as claimed in claim 14, wherein the rapid thermal process is implemented at a temperature range of 800 ~ 1100°C at a heating rate range of 20 ~ 50 °C/sec for a time period range of 5 ~ 30 seconds.

16. (New) The method as claimed in claim 15, wherein the rapid thermal process is implemented under a nitrogen atmosphere.